

H.D. Jacobs Biology

Term 3 & 4

11-12



SURVIVAL

When you are in deep trouble,
say nothing, and try to look like
you know what you're doing.

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Retain For Your Records

Advanced Biology

Jacobs High School Algonquin, Illinois

2011-2012

Instructor: Mr. Gorby & Mr. Murray

Office: 207

Classroom: 205

Phone: (847) 532-6281

Email: john.gorby@d300.org

Requirements for Course:

- **Textbook:** Holt Biology: book is also accessible online
 - o <http://my.hrw.com/>
 - User Name: jhsbiology
 - Password: eagles
- **Materials:**
 - o 1 to 2 in. 3-ring binder (must be kept in chronological order), Binder should be sectioned as follows...
 1. Calendar of Assignments
 2. Must Knows
 3. Bell Ringers
 4. homework/notes,
 5. labs/handouts, and
 6. journal/prefix/suffix
 - o an assignment notebook,
 - o spiral notebook for interactive notebook, pen, pencil, highlighter, simple calculator for certain labs, *Colored Pencils and *Ruler
 - * The last two items on the list are for home use and do not need to be brought to class everyday, however the remaining items are an everyday requirement for class.

Must be in all lowercase or won't work!

Class Atmosphere:

Students are expected to act as mature and responsible scientists (no whining, no eating or drinking, no CD or MP3 players, etc.)

Grading:

EVERY student is expected to keep their grade sheet for their notebooks with them at all times! (The Pink Sheet) This grade sheet should be kept in their notebooks and brought to class every day!

A student's grade will be **WEIGHTED** as follows:

- 15% Homework
- 30% Labs/Class work
- 40% Tests
- 15% Final Exam

Lab Reports:

Each report needs to be complete. Someone should be able to reproduce your work by reading your lab report. Write in complete sentences and a five part conclusion are a **MUST!**

Five part conclusion (Follow TEL-CON):

1. Statement
2. Address your hypothesis - were you right or wrong?
3. Analyze your results - be specific/what data supports what you conclude.
4. Experimental Error-identify what could have gone wrong.
5. Application of what was learned to the real world.

Class Work & Make-Up Work:

1. Extra credit: One 10 point extra credit per chapter which is due before the next test.
Article Summary - Find a one page or longer article on chapter topic OR new discovery and write ten questions to the author. Attach copy of article to summary and label it with the chapter number for which the extra credit is for.
Video Summary - Record a video of new discovery on the news, TV show, or magazine how (60 minutes or 20/20) and write a one paragraph summary.
2. Late work is accepted for full credit per the student handbook for excused absences. All other late work will be accepted for half credit on the next day only
3. If you are absent, you must ask me about the work you missed. Together, we will work out a date when the assignment is to be handed in.
 - YOU (the student) are expected to collect any work that you have missed while you were absent.
 - Also, YOU (the student) are responsible for turning in work not turned in with the class as a group, **DO NOT EXPECT ME TO ASK FOR IT!**
4. If you are absent on the day or two before a test, and are present on the day of the test, you must take the test since they are announced several days beforehand.
5. Cheating on any assignment or test will result in a grade of zero. School policy states that a referral is issued.

If you have any questions, please feel free to contact me.

Please complete the section below, sign it, and have your student return it to me by August 19th(Brown) or 9th(Gold).

Student Signature / Printed Name

Parent Signature / Printed Name

My Goals by _____

Goal # 1 is: _____

This goal is important because: _____

Steps I'll take to reach this goal are: _____

Goal # 2 is: _____

This goal is important because: _____

Steps I'll take to reach this goal are: _____

My Goals by _____

My Goal is:



My Target Date is:



To Reach My Goal I will do these 3 things:

- 1.
- 2.
- 3.

I will know I've reached my goal because:

2 things that will help me stick to reaching my goal are:

- 1.
- 2.

My 2 Goals by _____

My Behavior Goal is: _____

This goal is important because: _____

Steps I'll take to reach this goal are: _____

My Academic Goals is: _____

This goal is important because: _____

Steps I'll take to reach this goal are: _____

What am I doing to become a successful student?

Check the boxes the Student needs work on and fill out the appropriate question.

Students are expected to:

- ☐ **Complete all their homework on time, and take their time in completing.**

What have I done this week to meet this expectation?

What can I do next week to improve on this expectation?

- ☐ **Ask questions in areas where the students are struggling with understanding**

What have I done this week to meet this expectation?

What can I do next week to improve on this expectation?

- ☐ **When homework is specifically not assigned for the day, the students should be reviewing the areas covered since the beginning of the semester so the students can keep up with their knowledge of each topic.**

What have I done this week to meet this expectation?

What can I do next week to improve on this expectation?

- ☐ **Honors students especially should be prepared for all tests and quizzes.**

What have I done this week to meet this expectation?

What can I do next week to improve on this expectation?

- ☐ **Come to class prepared to take notes and actively participate in the days discussion.**

What have I done this week to meet this expectation?

What can I do next week to improve on this expectation?

- ☐ **Arrive to class on time and ready to start.**

What have I done this week to meet this expectation?

What can I do next week to improve on this expectation?

- ☐ **Use class time wisely.**

What have I done this week to meet this expectation?

What can I do next week to improve on this expectation?

Student's Signature: _____

Teacher's Signature: _____

Parent's Signature: _____

TELL-Con Paragraph Rubric

Name: _____

Topic Sentence	5	4	3	2	1
	Focus is clear and well stated; topic sentence contains one main idea.		Focus is vague; topic sentence could be worded better, but there is a topic sentence.		Focus is unclear; topic sentence is not evident.
Evidence	5	4	3	2	1
	Ample evidence is given to support topic statement. Examples are specific and explained in detail; all facts are accurate and relevant.		Evidence is vague and not specific enough, or evidence is not closely related to the subject.		Evidence is inaccurate and/or irrelevant; no specific evidence is described, or evidence described is unrelated.
Link	5	4	3	2	1
	Statements after evidence clearly link information to topic sentence (explains how the evidence fits). Clear and effective transitions exist between each piece of evidence.		Statements after each piece of evidence are related to the information in the topic sentence but not clearly linked. Clear and effective transitions are lacking.		Links are missing throughout the paragraph, only evidence; no real explanation of how the evidence supports topic sentence. Weak or missing transitions between evidence.
Language	5	4	3	2	1
	Paragraph contains no grammatical errors and uses sophisticated word choice.		Paragraph contains few grammatical errors and uses appropriate word choice.		Paragraph contains many grammatical errors and uses very simple or inappropriate word choice.
Concluding Statement	5	4	3	2	1
	Concluding statement is solid and conveys finality.		Concluding statement is present, but it does not convey finality.		Concluding statement is absent or minimal, and it does not convey finality.

Comments:

Total Points:

TEL(L*)-Con Paragraph

A graphic organizer to help you write the best paragraphs

T=Topic Sentence	E=Evidence/Example
L=Link (explain evidence)	Con=Concluding Statement

T	Indent
E	Begin with a Transition
L	
E	Begin with a Transition
L	
E	Begin with a Transition
L	
Con	Begin with a Transition

L*=Language (Proofread your Paragraph for grammatical errors and inappropriate word choice.)

TRANSITIONS

Using transitional words and phrases:

- Helps papers read more smoothly.
- They provide logical organization and understandability and improve the connections and transitions between thoughts.

Transitions indicate relations:

- whether within a sentence, paragraph, or paper.
- This list illustrates "relationships" between ideas, followed by words and phrases that can connect them.

Addition:

also, again, as well as, besides, coupled with, furthermore, in addition, likewise, moreover, similarly

Consequence:

accordingly, as a result, consequently, for this reason, for this purpose, hence, otherwise, so then, subsequently, therefore, thus, thereupon, wherefore

Generalizing:

as a rule, as usual, for the most part, generally, generally speaking, ordinarily, usually

Exemplifying:

chiefly, especially, for instance, in particular, markedly, namely, particularly, including, specifically, such as

Illustration:

for example, for instance, for one thing, as an illustration, illustrated with, as an example, in this case

Emphasis

above all, chiefly, with attention to, especially, particularly, singularly

Similarity:

comparatively, coupled with, correspondingly, identically, likewise, similar, moreover, together with

Exception:

aside from, barring, besides, except, excepting, excluding, exclusive of, other than, outside of, save

Restatement:

in essence, in other words, namely, that is, that is to say, in short, in brief, to put it differently

Contrast and Comparison:

contrast, by the same token, conversely, instead, likewise, on one hand, on the other hand, on the contrary, rather, similarly, yet, but, however, still, nevertheless, in contrast

Sequence:

at first, first of all, to begin with, in the first place, at the same time, for now, for the time being, the next step, in time, in turn, later on, meanwhile, next, then, soon, the meantime, later, while, earlier, simultaneously, afterward, in conclusion, with this in mind

Summarizing:

after all, all in all, all things considered, briefly, by and large, in any case, in any event, in brief, in conclusion, on the whole, in short, in summary, in the final analysis, in the long run, on balance, to sum up, to summarize, finally

Diversion:

by the way, incidentally

Direction:

here, there, over there, beyond, nearly, opposite, under, above, to the left, to the right, in the distance

How do I write a paper for any class that I take?

If you think that you deserve an “A”, why? What is your reasoning? When you write a paper you always have to connect what you have learned or are learning in class to the topic. For example, if I was learning to create work cited pages in English class and the teacher gave me an assignment to write a research paper on anything that I wanted, I would not write a paper without any research or a work cited page. I would get an “F”. I would not deserve an “A” for just writing a paper. Another example, if I am in English class and learning about how to properly use commas and my teacher gives me an assignment to write a paper. I would not write a paper without using the comma or trying to use the comma properly. In other words, I would want to show off my knowledge and let my teacher know that I am learning from the class, that I know how to properly use the knowledge gained in class and that I know enough to deserve an “A”.

The following are questions that you need to ask yourself when writing a paper. So let’s get ready to learn how to write a paper the right way to help us get one step closer to the “A” that we desire.

- ☆ 1. What **have I learned in class** or am I learning in class that will help me write this paper? This is a time for you to show off to your teacher. Let them know that you are learning. Use your notes, your book, diagrams or drawings with explanations, any thing that will help and is relevant to the topic.
- 2. What does **the research** tell you about the topic? What did you learn from your research?
- ☆ 3. How **can I connect** what I learned in class to the assignment or topic? (You always must make connections from classroom activities to the assignments given in class, whether it is a lab report or a research paper or any assignment.) A paper with no connections will give you a non-passing grade. (This is not good!)
- 4. Is the information from a **reliable source** and did I use citations (such as MLA format) to allow my teacher to examine the accuracy of the information and to let them know where I got this from? Did I gather the information from multiple sources to check the validity?
- 5. Have I followed **the guidelines** that my teacher has asked for?
 - Typing (format) requirements? Length requirements? Time requirements?

☆ Two most valuable things that you can tell a teacher to get a good grade.

General Paper Rubric for a 12 pt paper

How does my paper measure up to what I am supposed to do?

Use of Classroom Information	1	2	3
<ul style="list-style-type: none"> Student used... 	Very little information from classroom notes, projects, assignments, Labs etc.	knowledge gathered in class, but some of the information is either inaccurate or incomplete.	A detailed and accurate description of knowledge gathered from classroom notes, projects, assignments, labs etc. (diagrams can help)

Assignment	1	2	3
<ul style="list-style-type: none"> Student was able to... 	Follow the assignment, but needed more to give an accurate explanation or very little of the information was accurate.	Followed the assignment, however made few mistakes in the accuracy of the information or some of the information was incomplete	Accurately follow the assignment and was able to answer all of the questions required.

Connections	1	2	3
<ul style="list-style-type: none"> Student was able to... 	Make few connections, however most where either missing and/or inaccurate.	Make connections, however some connections are missing and/or others are inaccurate	Accurately make connections between all knowledge acquired in class to the assignment at hand.

Reliable & Relevant	1	2
<ul style="list-style-type: none"> Student was able to... 	Information was either gathered from an unreliable source or was irrelevant to the topic.	Information gathered came from a reliable source and was relevant to the assignment and in class knowledge

Assignment	1
<ul style="list-style-type: none"> Student was able to... 	Assignment was followed accordingly to teachers format directions and no grammatical errors where made.

Total points for Student: _____ / 12 pts.

Student Science Laboratory Report Rubric

<u>Problem Statement</u>	1	2	3	4
Pts _____ /2	Only 1 of the required fields are adequately presented	<ul style="list-style-type: none"> - problem is presented in a question form - precise, clear and relevant 		

<u>Background Info.</u>	1	2	3	4
Pts _____ /4	Only 1 of the required fields are adequately presented	Only 2 of the required fields are adequately presented	Only 3 of the required fields are adequately presented	<ul style="list-style-type: none"> - BG info related to problem - Gathered info from 3 creditable sources (x2) - Info presented in paragraph form

<u>Hypothesis</u>	1	2	3	4
Pts _____ /2	Only 1 of the required fields are adequately presented	<ul style="list-style-type: none"> - If..., then.... Statement - Reasonable association between problem and predicted results 		

<u>Experimental Design</u>	1	2	3	4
Materials list Pts _____ /2	Only 1 of the required fields are adequately presented	<ul style="list-style-type: none"> - All materials used are listed - Total amounts are used to determine the quantity of amounts used 		
Variable List Pts _____ /3				
Procedures Pts _____ /3	Only 1 of the required fields are adequately presented	Only 2 of the required fields are adequately presented	<ul style="list-style-type: none"> • Procedures step-by-step in a numeric fashion • Identified possible safety concerns • Repeatable procedures 	

Data Collection (Table)	1	2	3	4
Pts _____ /3	Only 1 of the required fields are adequately presented	Only 2 of the required fields are adequately presented	<ul style="list-style-type: none"> • Descriptive Title • Labels w/ Units • Ranking order if applicable 	

Data Display (Graph)	1	2	3	4
Pts _____ /4	Only 1 of the required fields are adequately presented	Only 2 of the required fields are adequately presented	Only 3 of the required fields are adequately presented	<ul style="list-style-type: none"> • Descriptive Title • Labels w/ Units • Ranking order if applicable • Choose appropriate graph

Analysis	1	2	3	4
Pts _____ /2	Only 1 of the required fields are adequately presented	<ul style="list-style-type: none"> • Identify trends using graph • Identify trends using table 		

Conclusion	1	2	3	4
Conclusive Paragraph	Only 1 of the required fields are adequately presented	Only 2 of the required fields are adequately presented	<ul style="list-style-type: none"> • Restatement of hypothesis • Brief description explains the accuracy of the hypothesis • Conclusion warranted by data from analysis 	
Pts _____ /3				
Error Analysis	Thought of one possible error	Thought of two possible errors		
Pts _____ /2				
Additional questions or follow up experiments	Thought of one follow up experiment	Thought of two follow up experiments		
Pts _____ /2				

References	1	2	3	4
Pts _____ /2	Only 1 of the required fields are adequately presented	<ul style="list-style-type: none"> • At least 3 sources are used in the experiment • All sources are listed using proper citations 		

Total Points Earned: _____ / _____

Checking your work

Problem Statement:

In your problem statement did you include your manipulated (independent) variable and your responding (dependent) variable in your question?

Background information:

Did you describe

- what diffusion is?
- How it relates to a cell?
- How many cells a normal human body has?
- What are some of the functions of a cell?
- What is the typical size of a cell?

Did you cite your sources? (you should have 3 sources: book and lab handout could be two)

Hypothesis:

Did you use an if... then Statement?

Did you include your independent and dependent variable?

Variable List:

Did you identify the variable properly? (controlled, manipulated & responding V)

Do you have 3 or more controlled variables?

Materials List:

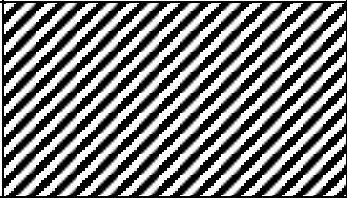
Did you identify all the materials need for the lab?

Do you have the total amounts of each material needed?

Name: _____

Date: _____ Period: _____

Presentation Rubric

	1	2	3
Verbal Skills	Student stumbled on words or spoke quietly	Student stumbled on words here & there or spoke quietly at times	Student spoke clearly & audibly the entire time
Eye Contact	Student completely read off notes or visual aids	Students at times read off of notes or visual aids	Student made continuous eye contact w/ audience
Visual Aids	Visual aids where small and in appropriate to the topic	Visual aids where small or in appropriate to the topic	Visual Aids had were appropriate in content & size
Body Language	Student did not appear to be relaxed and comfortable or made many distracting movements	Student appeared to be relaxed and comfortable but made some distracting movements	Student appeared to be relaxed and comfortable and did not make few distracting movements
Polite	Student did not politely answer the questions	Student answered all questions politely and was considerate to the questioner	
Preparation	Student were slightly prepared to speak and appear to have not practiced	Student were prepared to speak but appear to not have practiced	Student were prepared to speak and appear to have practiced
Fielding Questions X2	Student successfully and accurately answered some questions	Student successfully and accurately answered most questions	Student successfully and accurately answered all questions

Total Points: _____ / **23**

January 2012

January 2012							February 2012						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7				1	2	3	4
8	9	10	11	12	13	14		5	6	7	8	9	10
15	16	17	18	19	20	21	12	13	14	15	16	17	18
22	23	24	25	26	27	28	19	20	21	22	23	24	25
29	30	31					26	27	28	29			

Monday		Tuesday		Wednesday		Thursday		Friday	
Jan 2		3		4		5		6	
Jan 2 - 6									
9		10		11		12		13	
Jan 9 - 13									
16		17		18		19		20	
Jan 16 - 20									
23		24		25		26		27	
Jan 23 - 27									
30		31		Feb 1		2		3	
Jan 30 - Feb 3									

February 2012

February 2012							March 2012						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
5	6	7	1	2	3	4	4	5	6	7	1	2	3
12	13	14	8	9	10	11	11	12	13	14	8	9	10
19	20	21	15	16	17	18	18	19	20	21	15	16	17
26	27	28	22	23	24	25	25	26	27	28	22	23	24
			29								29	30	31

Monday		Tuesday		Wednesday		Thursday		Friday	
Jan 30		31		Feb 1		2		3	
Jan 30 - Feb 3									
6		7		8		9		10	
Feb 6 - 10									
13		14		15		16		17	
Feb 13 - 17									
20		21		22		23		24	
Feb 20 - 24									
27		28		29		Mar 1		2	
Feb 27 - Mar 2									

March 2012

March 2012							April 2012						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
4	5	6	7	1	2	3	1	2	3	4	5	6	7
11	12	13	14	8	9	10	8	9	10	11	12	13	14
18	19	20	21	22	23	24	15	16	17	18	19	20	21
25	26	27	28	29	30	31	22	23	24	25	26	27	28

	Monday	Tuesday	Wednesday	Thursday	Friday
	Feb 27	28	29	Mar 1	2
Feb 27 - Mar 2					
Mar 5 - 9	5	6	7	8	9
Mar 12 - 16	12	13	14	15	16
Mar 19 - 23	19	20	21	22	23
Mar 26 - 30	26	27	28	29	30

April 2012

April 2012							May 2012						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7			1	2	3	4	5
8	9	10	11	12	13	14	6	7	8	9	10	11	12
15	16	17	18	19	20	21	13	14	15	16	17	18	19
22	23	24	25	26	27	28	20	21	22	23	24	25	26
29	30						27	28	29	30	31		

Monday		Tuesday		Wednesday		Thursday		Friday	
Apr 2 - 6	Apr 2	3	4	5	6				
Apr 9 - 13	9	10	11	12	13				
Apr 16 - 20	16	17	18	19	20				
Apr 23 - 27	23	24	25	26	27				
Apr 30 - May 4	30	May 1	2	3	4				

May 2012

May 2012							June 2012						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
6	7	8	9	10	11	12	3	4	5	6	7	8	9
13	14	15	16	17	18	19	10	11	12	13	14	15	16
20	21	22	23	24	25	26	17	18	19	20	21	22	23
27	28	29	30	31			24	25	26	27	28	29	30

Monday		Tuesday		Wednesday		Thursday		Friday	
Apr 30		May 1		2		3		4	
7		8		9		10		11	
14		15		16		17		18	
21		22		23		24		25	
28		29		30		31		Jun 1	